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FILE 'HCAPLUS, BIOSIS, MEDLINE, EMBASE, SCISEARCH, LIFESCI, JICST-EPLUS, WPIDS' ENTERED AT 09:19:37 ON 01 FEB 2001
23 S STEMMLER I?/AU

23	S STEMMLER I?/AU
222	S BRECHT A?/AU
538	S GAUGLITZ G?/AU
23	S STEINWAND M?/AU
2	S L1 AND L2 AND L3 AND L4
626	S L1-L5
104	S L6 AND ANALYTE
16963	S ANALYTE (4A) (DETN OR DETERMIN? OR ANALY? OR DETECT?)
30	S L7 AND L8
31	S L5 OR L9
13	DUP REMOV L10 (18 DUPLICATES REMOVED)
	222 538 23 2 626 104 16963 30 31

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- L11 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 1
- AN 2000:534904 HCAPLUS
- DN 133:117171
- TI Method for fluorometric detection in heterogeneous phase affinity assays using microtiterplates
- IN Stemmler, Ivo; Brecht, Andreas; Gauglitz, Gunter; Steinwand, Michael
- PA Bodenseewerk Perkin-Elmer G.m.b.H., Germany
- SO Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

- DT Patent
- LA German
- FAN.CNT 1

PATENT NO.					KII	ND	DATE			APPLICATION NO. DATE								
PI	EP	1024363		A2		20000802			EP 2000-101102					20000120				
		R:							FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	Ŀν,	FI,	RO										
	DE	1990	3576				20000831			DE 1999-19903576					19990129			
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PRAI DE 1999-19903576 19990129

AB The invention concerns a method for detecting fluorescence signals from one phase of heterogeneous phase affinity assays that are carried out in microtiter/nanotiterplates with immobilized probes; after the reaction

the

fluorescence is measured in the liq. phase; interference from the solid phase can be eliminated with quenching materials. The method eliminates washing steps during the assay. This detection is applied for immunoassays and nucleic acid hybridization assays; it enables to work in vols. < 1 .mu.L.

- L11 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 2
- AN 2000:290999 HCAPLUS
- DN 132:312492
- TI Sensing of volatile organic compounds using a simplified reflectometric interference spectroscopy setup
- AU Reichl, D.; Krage, R.; Krummel, C.; Gauglitz, G.
- CS Institut fur Physikalische und Theoretische Chemie, Eberhardt-Karls-Universitat Tubingen, Tubingen, D-72076, Germany
- SO Appl. Spectrosc. (2000), 54(4), 583-586 CODEN: APSPA4; ISSN: 0003-7028
- PB Society for Applied Spectroscopy
- DT Journal
- LA English
- AB A simplified optical sensor system is presented using the principle of reflectometric interference spectroscopy (RIfS) for monitoring org. solvent vapors in air. The shift of the interference pattern caused by a change of the optical thickness of a sensitive layer, due to the influence

of analyte, is investigated. The interference pattern is detected by only 4 wavelengths, in contrast to the system described formerly, which detects the same spectral range with a diode-array spectrometer. With the use of a direct light path between the light-emitting diodes (LEDs), transducer, and detector, no fiber-optic light guides are required. The advantages and requirements of the new optical and electronic setup as well as several applications in gas sensing are discussed with respect to the limits of detection for some analytes.

RE.CNT 16

RE

- (1) Arnold, M; Anal Chem 1992, V64, P1015A HCAPLUS
- (7) Kraus, G; Chemom Intell Lab Syst 1995, V30, P211 HCAPLUS
- (9) Kraus, G; Fresenius' J Anal Chem 1992, V344, P153 HCAPLUS
- (12) Nopper, D; Fresenius' J Anal Chem 1998, V362, P114 HCAPLUS
- (14) Spaeth, K; Fresenius' J Anal Chem 1997, V357, P292 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L11 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 3
- AN 1997:414159 HCAPLUS
- DN 127:119125
- TI Chiral discrimination using piezoelectric and optical gas sensors
- AU Bodenhofer, K.; Hierlemann, A.; Seemann, J.; Gauglitz, G.; Koppenhoefer, B.; Gopel, W.
- CS Inst. Physical Theoretical Chem., Centre Interface Analysis Sensors, Univ.
 - Tubingen, Tubingen, D-72076, Germany
- SO Nature (London) (1997), 387(6633), 577-580 CODEN: NATUAS; ISSN: 0028-0836
- PB Macmillan Magazines
- DT Journal
- LA English
- AB Odor perception in humans can sometimes discriminate different enantiomers

of a chiral compd., such as limonene. Chiral discrimination represents one of the greatest challenges in attempts to devise selective and sensitive gas sensors. The importance of such discrimination for pharmacol. is clear, as the physiol. effect of enantiomers of drugs and other biol. active mols. may differ significantly. Here we describe two different sensor systems that are capable of recognizing different enantiomers and of qual. monitoring the enantiomeric compn. of amino-acid derivs. and lactates in the gas phase. One sensor detects changes in mass, owing to binding of the compd. being analyzed (the 'analyte'), by thickness shear-mode resonance; the other detects changes in the thickness of a surface layer by reflectometric

interference

spectroscopy. Both devices use the two enantiomers of a chiral polymeric receptor, and offer rapid online detection of chiral species with high selectivity.

- L11 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 4
- AN 1997:424428 HCAPLUS
- DN 127:170868
- TI Affinity characterization of monoclonal and recombinant antibodies for multianalyte detection with an optical transducer
- AU Piehler, Jacob; Brecht, Andreas; Giersch, Thomas; Kramer, Karl; Hock, Bertold; Gauglitz, Guenter
- CS Universitaet Tuebingen, Institut fuer Physikalische und Theoretische Chemie, Auf der Morgenstelle 8, D-72076, Tubingen, Germany
- SO Sens. Actuators, B (1997), B39(1-3), 432-437 CODEN: SABCEB; ISSN: 0925-4005
- PB Elsevier
- DT Journal
- LA English
- AB The selectivity of immunoassay is limited by the cross-reactivity of antibodies to structurally related **analytes**. This becomes a drawback for applications that require discrimination of slightly different **analytes**. An approach to overcoming this problem is the application of antibody arrays that show differences in their affinity

patterns. The authors have studied this method using systematic modeling of multianalyte systems based on test-independent affinity parameters. A model system of anti-s-triazine antibodies and s-triazine derivs. was studied. The immunoassay is carried out in an indirect test format using an optical transducer for label-free monitoring of antibody binding at an immobilized hapten. The concn. of free antibody in equil. with the analyte is probed in a flow-through system. This format allows simple modeling of the response and assessment of the affinity const.

from

the calibration curve. The affinity patterns of five monoclonal antibodies and a recombinant single-chain fragment with respect to five s-triazine derivs. are detd. by this method. An array of three antibodies

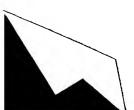
is selected and the response pattern to mixts. of three analytes detd. Measured and calcd. pattern correspond in principle, but systematic deviations are obsd. due to the perturbation of equil. during detection. The correlation of the true analyte concn. and the analyte concns. predicted from the signal pattern using the affinity consts. strongly depend on the selectivity and the affinity of the antibodies.

- L11 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 5
- AN 1997:76168 HCAPLUS
- DN 126:156116
- TI Assessment of affinity constants by rapid solid phase detection of equilibrium binding in a flow system
- AU Piehler, Jacob; Brecht, Andreas; Giersch, Thomas; Hock, Bertold; Gauglitz, Guenter
- CS Institut fuer Physikalische und Theoretische Chemie, Auf der Morgenstelle 8, D-72076, Tubingen, Germany
- SO J. Immunol. Methods (1997), 201(2), 189-206 CODEN: JIMMBG; ISSN: 0022-1759
- PB Elsevier
- DT Journal
- LA English
- AB We present a method for the detn. of affinity consts. based on equil. binding between an analyte and an antibody in liq. phase by a heterogeneous phase detection scheme. Equil. concn. of free antibody binding sites was probed kinetically by direct optical detection of specific binding to an immobilized analyte deriv. The addnl. binding signal due to dissocn. of the analyte-antibody complex during detection was minimized by the use of fast flow-through conditions. The concn. of free antibody binding sites was titrated by adding increasing analyte concns. The affinity const. was derived from the titrn. curve by a non-linear least square fit of a model function. The affinity of monoclonal triazine antibodies to several s-triazine pesticides and a relevant metabolite was investigated.

Kinetic

detn. of equil. concn. of free binding sites was carried out by reflectometric interference spectroscopy (RIfS) using flow injection anal.

The capabilities of the model were investigated using different analyte-antibody pairs and various antibody concns. Both bivalent IgG and monovalent Fab fragments were used to compare different binding models. The applied model corresponds well to the titrn. curves for affinity consts. of 107 M-1 and higher. For lower affinity consts. significant deviations due to dissocn. of the analyte-antibody complex during detection were obsd.



- L11 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 6
- AN 1995:970871 HCAPLUS
- DN 124:4169
- TI Affinity Detection of Low Molecular Weight Analytes
- AU Piehler, Jacob; Brecht, Andreas; Gauglitz, Guenter
- CS Institute for Physical and Theoretical Chemistry, University of Tuebingen,

Tuebingen, D-72076, Germany

- SO Anal. Chem. (1996), 68(1), 139-43 CODEN: ANCHAM; ISSN: 0003-2700
- DT Journal
- LA English
- AB The authors report attempts to detect directly the binding of a low-mol.-wt. substance to a protein-binding site. An optical transducer based on reflectometric interference spectroscopy (RIFS) was used to detect the binding of biotin (244 g/mol) to a thin silica film surface coated with streptavidin. RIFS allows measurement to changes in the optical thickness of thin transparent films with high resoln. During immobilization of streptavidin, an increase in layer thickness of about 5 nm was detected. Subsequent incubation with biotin (4 .mu.M) resulted in a thickness increase of about 70 pm. Repeated incubation with biotin

gave

no further increase in layer thickness. The lowest biotin concn. showing significant effects was 40 nM. Incubation with benzoic acid (40 .mu.M) gave no thickness change. The setup allowed significant detection of thickness increases of 2 pm and above. Therefore, the thickness effects obsd. in the study could be unambiguously and clearly identified.

- L11 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 7
- AN 1995:722411 HCAPLUS
- DN 123:186957
- TI Multi-analyte immunoassays application to environmental analysis
- AU Brecht, A.; Abuknesha, R.
- CS Tuebingen, Germany
- SO Trends Anal. Chem. (1995), 14(7), 361-71 CODEN: TTAEDJ; ISSN: 0165-9936
- DT Journal; General Review
- LA English
- AB A review, with 40 refs. The demanding requirements for a practical screening technol. for toxic org. chems., particularly in the aquatic environment, are not at present met by any of the available procedures. Recent advances in nonenvironment target application areas indicate that immunochem.-based simultaneous multi-anal. capabilities are feasible. Simunalysis the simultaneous detection of a plurality of analytes by immunochem. techniques would answer many of the requirements of pollution monitoring services. Simunalysis will be of immense value where the emphasis is on simplicity, avoidance of sample treatment, speed, sensitivity, a high degree of automation and acceptable cost. The authors review published literature on multi-anal. and discuss likely ways ahead for the design and development of Simunalysis systems for environmental applications.

- L11 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 8
- AN 1994:330628 HCAPLUS
- DN 120:330628
- TI Low-molecular-weight analytes in water by spectral interferometry using a competitive immunoassay
- AU Lang, G.; Brecht, A.; Gauglitz, G.
- CS Inst. Phys. Theor. Chem., Univ. Tuebingen, Tuebingen, D-72076, Germany
- SO Fresenius' J. Anal. Chem. (1994), 348(8-9), 602-5 CODEN: FJACES; ISSN: 0937-0633
- DT Journal
- LA English
- AB The optical detection principle of reflectometric interference spectroscopy (RIFS) was applied to the immunol. detection of low mol. wt. analytes. Dinitrophenol/anti-Dinitrophenol was used as a model system for pesticide detection. The spectrometric principle allowed sensitive detn. of small changes in the thickness of a thin film caused by the reaction of an antigen and its antibody. Changes in optical

thickness correlate with the **analyte'**s concn. Time resolved measurements allow dynamic monitoring of the antigen-antibody interaction.

Detection limits currently achieved are in the ppb-range.

- L11 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2001 ACS
- AN 1999:350943 HCAPLUS
- DN 131:151303
- TI Sensitivity enhancement of transducers for total internal reflection fluorescence
- AU Klotz, Albrecht; Barzen, C.; Brecht, Andreas; Harris, Richard D.; Quigley, G. R.; Wilkinson, James S.; Gauglitz, Guenter
- CS Inst. Physical Chem., Eberhard-Karls-Univ. Tuebingen, Tuebingen, Germany
- SO Proc. SPIE-Int. Soc. Opt. Eng. (1999), 3620(Integrated Optics Devices III), 345-354
- CODEN: PSISDG; ISSN: 0277-786X
- PB SPIE-The International Society for Optical Engineering
- DT Journal
- LA English

detection

AB We have developed, modeled and optimized optical transducers for total internal reflection fluorescence (TIRF). The transducers are part of a compact and rugged immuno-anal. instrument designed for simultaneous detection of up to six analytes in aquatic samples (e.g. atrazine and 2,4-D). Binding inhibition assays, using Cy5.5 labeled antibodies to detect the target analytes, were carried out. Calibration curves with mid-points of tests <1 .mu.g/l and

limits <0.1 .mu.g/l were achieved. As transducer either ion exchanged integrated optical channel waveguides or planar multimode slab waveguides were employed. The transducer performance was significantly enhanced by incorporating thin high index films at the waveguide surface and by applying high refractive index solns. in the superstrate. Peak signal enhancement factors of more than ten were obsd. and an increase in signal to noise ratio by a factor of more than four were achieved. Strong polarization dependent effects on the enhancement by high index films

were

found both theor. and exptl.

RE.CNT 17

D F

- (1) Bjarnason, B; Anal Chim Acta 1997, V347, P111 HCAPLUS
- (2) Cush, R; Biosens & Bioselecton 1993, V8, P347 HCAPLUS
- (8) Herron, J; SPIE Proceedings series 1885 1993, P28 HCAPLUS
- (9) Lang, G; Fres J Anal Chem 1996, V354, P857 HCAPLUS
- (12) Piehler, J; Appl Opt 1997, V36(25), P6554 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L11 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2001 ACS
- AN 1999:239251 HCAPLUS
- DN 130:316297
- TI Waveguide immunofluorescence sensor for water pollution analysis
- AU Harris, R. D.; Quigley, G. R.; Wilkinson, J. S.; Klotz, A.; Barzen, C.; Brecht, A.; Gauglitz, G.; Abukneshac, R. A.
- CS Optoelectronics Research Centre, Southampton University, UK
- Proc. SPIE-Int. Soc. Opt. Eng. (1998), 3539 (Chemical Microsensors and Applications), 27-35 CODEN: PSISDG; ISSN: 0277-786X
- PB SPIE-The International Society for Optical Engineering
- DT Journal
- LA English
- AB A regenerable channel waveguide fluorescence sensor for environmental monitoring is reported. The sensor was characterized as a detector of the

pesticide 2,4-dichlorophenoxyacetic acid. A binding inhibition assay, using fluorescent Cy5.5 dye-labeled antibodies, was monitored at the modified surface of the glass waveguide to **detect** the target **analyte**. Three calibration curves were detd. and averaged. The averaged calibration curve has a mid-point of 0.68 ppb and a calcd. detection limit of 0.28 ppb. Incorporation of a 20-nm thick tantalum pentoxide film at the waveguide surface enhanced the peak fluorescence signal by a factor of .apprx.6 compared with an uncoated sensor. Due to the high optical field strengths at the surface of the waveguide, which

is

.apprx.10 .mu.m wide, significant photobleaching of the dye mols. occurs. The rate of photobleaching will be reduced if the power d. of the excitation radiation at the surface of the waveguide is reduced, offering the potential for enhanced device sensitivity. It is demonstrated that this may be achieved, without reducing the total power, by broadening the 10-.mu.m wide optical waveguide through a tapered region to a final width in excess of 50 .mu.m. A distinct advantage of this broadening is to improve the signal to noise ratio of the sensor as the no. of bound fluorophores at the waveguide surface increases linearly with the waveguide width. Theor. modeling of tapered waveguides, using a com.

beam

propagation method package, indicated that the peak field intensity of radiation in the 10 .mu.m guide may be reduced by 85% if the guide is broadened through a taper to a final width of 50 .mu.m.

RE.CNT 13

RE

- (1) Bester, K; Marine Pollution Bulletin 1993, V26, P423 HCAPLUS
- (2) Brecht, A; Analytica Chimica Acta 1995, V311, P289 HCAPLUS
- (3) Fattinger, C; Biosensors and Bioelectronics 1993, V8, P99 HCAPLUS
- (4) Goddard, N; Analyst 1994, V119, P583 HCAPLUS
- (5) Heideman, R; Sensors and Actuators B 1993, V10, P209 HCAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L11 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2001 ACS
- AN 1997:89240 HCAPLUS
- DN 126:141546
- TI Reflectometric interference spectroscopy for direct affinity sensing
- AU Brecht, A.; Gauglitz, G.
- CS Inst. Physikalische Theoretische Chemie, Unov. Tuebingen, Tuebingen, D-72076, Germany
- SO EXS (1997), 81(Frontiers in Biosensorics II), 1-16 CODEN: EXSEE7; ISSN: 1023-294X
- PB Birkhaeuser
- DT Journal; General Review
- LA English
- AB A review with many refs. on mol. recognition by non covalent interaction as a key importance not only in fundamental biochem., but also in affinity-based anal. In typical affinity assays labeled compds. are used for detection of assay response. In contrast, the label-free detection

of
 mol. interaction allows a more straightforward approach to binding
 detection, simplified test schemes, and addnl. information about kinetic
 characteristics of the interaction. Optical techniques are particularly
 useful in direct affinity detection. One approach, based on white light
 interferometry is discussed in detail. This technique monitors the
change

in thickness of surface-bound layers of biol. material by white light interference. Applications are given from quant. detection of high mol. wt. analytes, detection of low mol. wt. analytes in a competitive test scheme, direct detection of low mol. wt. analytes with immobilized receptors, investigation f interaction kinetics, and thermodn. anal. of binding equil. Finally, an outlook with respect to low-cost bioanal. systems and high throughput screening applications is given, comparing various transducers and demonstrating advantages of label-free detection.

- L11 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2001 ACS
- AN 1996:53591 HCAPLUS
- DN 124:169871
- TI Multi-analyte determination with a direct optical multi-antibody detection system
- AU Piehler, Jacob; Brecht, Andreas; Kramer, Karl; Hock, Bertold; Gauglitz, Guenter
- CS Institut fur Physikalische und Theoretische Chemie, Universitat Tubingen, Tuebingen, D-72076, Germany
- Proc. SPIE-Int. Soc. Opt. Eng. (1995), 2504 (Environmental Monitoring and Hazardous Waste Site Remediation, 1995), 185-94 CODEN: PSISDG; ISSN: 0277-786X
- DT Journal
- LA English
- AB Discrimination of structurally similar analytes by immunoassay is limited by antibody cross reactivity. Using a plurality of cross-reacting antibody species allows increased selectivity by application of pattern recognition methods. We present a detailed characterization of an array of monoclonal antibodies which allows anal. modeling of the performance of an antibody array in a multi-analyte system. Such well defined antibody arrays give the possibility for the systematical optimization for immunoassay applications. Affinity characterization is carried out in a simple test format: After equil. binding of antibody and analyte, unoccupied antibody is quantified by an optical transducer. The test result reflects

directly the resp. affinity consts. for different **analytes**. A set of three monoclonal antibodies was characterized with respect to their

affinity to five different triazines which play an important role in water $% \left(\frac{1}{2}\right) =\frac{1}{2}\left(\frac{1}{2}\right) +\frac{1}{2}\left(\frac{1}{2}\right) +$

contamination. The affinities were compared with results obtained by direct enzyme immunoassay. The anal. performance of the antibody array was modelled by using the affinity consts. detd. from the calibration curve.

Page 13

- L11 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2001 ACS
- AN 1992:165203 HCAPLUS
- DN 116:165203
- TI Optical sensors do they require a computer?
- AU Gauglitz, G.
- CS Inst. Phys. Theor. Chem., Tuebingen, W-7400, Germany
- SO Software Dev. Chem. 5, Proc. Workshop "Comput. Chem.", 5th (1991), 139-50.
 - Editor(s): Gmehling, Juergen. Publisher: Springer, Berlin, Germany. CODEN: 57PPAU
- DT Conference; General Review
- LA English
- AB Recently, optical sensors have generated increasing interest in application and research. In principle, they are considered to detect selectively compds. in analyte mixts. by their specific activity of the chems. or biochems. in the sensor head. But, evidently this requirement cannot be fulfilled at the moment. For this reason, in addn. to the use of microprocessors for the automation of the sensor measurement, computers have to be used in the evaluation of data
- increase selectivity by the use of sensor arrays and methods of multicomponent anal. and pattern recognition, resp. The necessity of computers in the physico-chem. characterization of the sensor material,
- in
 the process control, and in the data evaluation is demonstrated.
 Furthermore, some examples of sensors based on fiber optics and
 interferometric detection principles as well as waveguide applications
 are
- discussed. A review with 24 refs.

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L11 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2001 ACS
                                                      DUPLICATE 1
    2000:534904 HCAPLUS
AN
DN
    133:117171
    Method for fluorometric detection in heterogeneous phase affinity assays
TI
     using microtiterplates
IN
    Stemmler, Ivo; Brecht, Andreas; Gauglitz,
     Gunter; Steinwand, Michael
PΑ
     Bodenseewerk Perkin-Elmer G.m.b.H., Germany
SO
    Eur. Pat. Appl., 17 pp.
    CODEN: EPXXDW
DT
    Patent
LA
    German
IC
     ICM G01N033-53
     ICS G01N033-543; C12Q001-68; G01N033-58; B01L003-00
CC
     9-5 (Biochemical Methods)
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
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                     A2 20000802
PΤ
    EP 1024363
                                         EP 2000-101102 20000120
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
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     DE 19903576
                           20000831
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     JP 2000221192
                      A2
                           20000811
                                          JP 2000-22736
                                                          20000131
PRAI DE 1999-19903576 19990129
    The invention concerns a method for detecting fluorescence signals from
    one phase of heterogeneous phase affinity assays that are carried out in
    microtiter/nanotiterplates with immobilized probes; after the reaction
the
    fluorescence is measured in the liq. phase; interference from the solid
    phase can be eliminated with quenching materials. The method eliminates
    washing steps during the assay. This detection is applied for
    immunoassays and nucleic acid hybridization assays; it enables to work in
    vols. < 1 .mu.L.
ST
    fluorometry microtiterplate immunoassay hybridization heterogeneous phase
    detection
TΤ
    Fluorescence quenching
    Fluorescent indicators
    Fluorometry
    Immobilization, biochemical
    Immunoassay
    Laser fluorometry
    Microtiter plates
    Nucleic acid hybridization
        (method for fluorometric detection in heterogeneous phase affinity
        assays using microtiterplates)
TI
    Antibodies
     Probes (nucleic acid)
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (method for fluorometric detection in heterogeneous phase affinity
        assays using microtiterplates)
IT
     7440-22-4, Silver, uses
                              7440-57-5, Gold, uses
    RL: DEV (Device component use); USES (Uses)
        (fluorescence quenching material; method for fluorometric detection in
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09/492214 GABEL

heterogeneous phase affinity assays using microtiterplates)
1912-24-9D, Atrazine, deriv.
RL: ANT (Analyte); ANST (Analytical study)
 (method for fluorometric detection in heterogeneous phase affinity assays using microtiterplates) ΙT